Northstar 8000i

4 Port USB Hub

Installation Manual

NORTHSTAR

www.northstarnav.com

1 Warning and safety information

IMPORTANT SAFETY INFORMATION Please read carefully before use	
DANGER	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety measures that follow this symbol to avoid possible injury or death.
⚠WARNING	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠CAUTION	CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
CAUTION	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

⚠CAUTION

Read and observe the Warnings and Notices in the Northstar 8000i System Installation Manual.

2 Disclaimer

As Northstar is continuously improving this product we retain the right to make changes to the product at any time which may not be reflected in this version of the manual. Please contact your nearest Northstar distributor if you require any further assistance.

It is the owner's sole responsibility to install and use the instrument and transducers in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

BRUNSWICK NEW TECHNOLOGIES INC. AND ITS SUBSIDIARIES AND AFFILIATES DISCLAIM ALL LIABILITY FOR ANY USE OF THIS PRODUCT IN A WAY THAT MAY CAUSE ACCIDENTS, DAMAGE OR THAT MAY VIOLATE THE LAW.

Governing Language: This statement, any instruction manuals, user guides and other information relating to the product (Documentation) may be translated to, or has been translated from, another language (Translation). In the event of any conflict between any Translation of the Documentation, the English language version of the Documentation will be the official version of the Documentation.

This manual represents the product as at the time of printing. Brunswick New Technologies Inc. and its subsidiaries and affiliates reserve the right to make changes to specifications without notice.

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3 Warranty

The Northstar Warranty Statement is supplied as a separate document.

It is shipped with the Product Registration Card.

In case of any queries, refer to www.northstarnav.com.

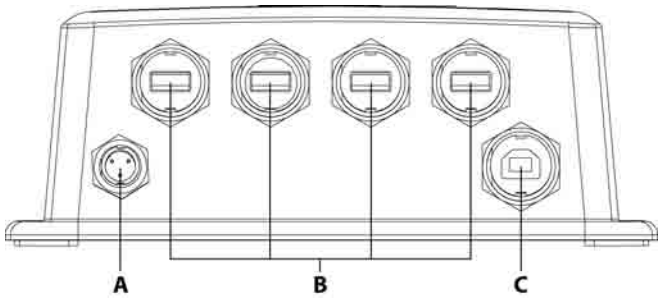
Contents

1	Warning and safety information	2
2	Disclaimer	3
3	Warranty	3
4	Northstar 8000i 4 Port USB Hub	5
5	What comes with your 4 Port USB Hub	7
6	Installation	8
7	Specification	11
8	Maintenance	11
9	Technical support, service and repairs	12

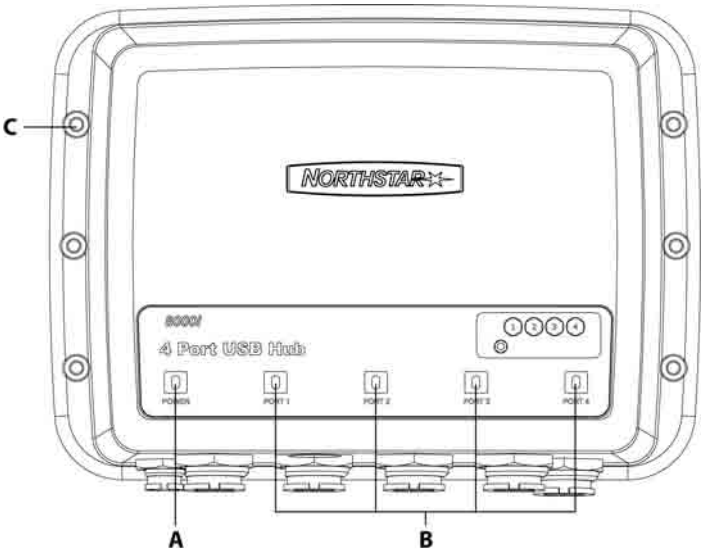
4 Northstar 8000i 4 Port USB Hub

The Northstar 8000i 4 Port USB Hub connects up to four (4) optional USB accessories to a Northstar 8000i System. Fit a 4 Port USB Hub if your Northstar 8000i System processor does not have enough USB ports. This manual describes how to install the unit, and must be used with the guidelines in the Northstar 8000i System Installation Manual.

4.1.1.1 4 Port USB Hub - Front view

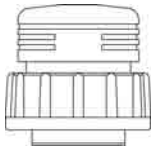


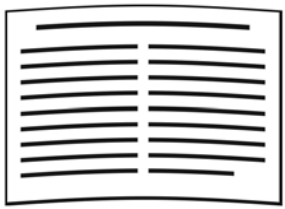
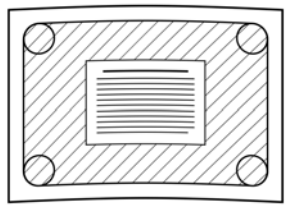
A	Power	Connect to supplied power (see "Installation" page 8)
B	USB A Type	USB down stream ports. The 4 ports can connect to any Northstar 8000i USB device
C	USB B Type	USB upstream ports. Use the supplied USB cable to connect the USB to any Northstar 8000i processor. (see the Northstar 8000i System installation Manual



A	POWER LED	The Red LED indicated that the unit has power and is turned on
B	PORT LEDs	The LEDs indicate the operational status of the port
C	Panel Mounting Holes	Use the holes to mount unit

5 What comes with your 4 Port USB Hub

<table>
<tr><td colspan="2"> </td></tr>
<tr><td colspan="2">4 Port USB Hub NS004720</td></tr>
<tr><td>  </td><td> </td></tr>
<tr><td>Large Protective Caps x 5 CN000222-G</td><td>Mounting Screws x 6 HR000087</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>Power Cable
AS000453-G</td><td>USB Cable A-B
NS004808</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>This Manual MN000488D-G</td><td>Warranty</td></tr>
</table>

	
Registration Card	Mounting Template LA000591A-G

6 Installation

⚠WARNING

Read and observe the Warnings and Notices in the Northstar 8000i System Installation Manual.

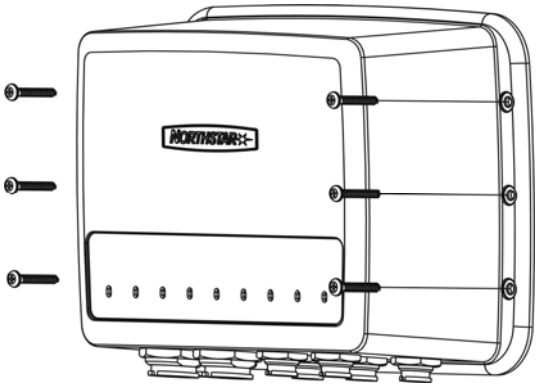
⚠CAUTION

Follow the Installation Guide in the Northstar 8000i System Installation Manual.

⚠CAUTION

Find a suitable location for the unit following the Location Guidelines in the Northstar 8000i System Installation Manual.

Use the screws supplied to screw the case to the panel.

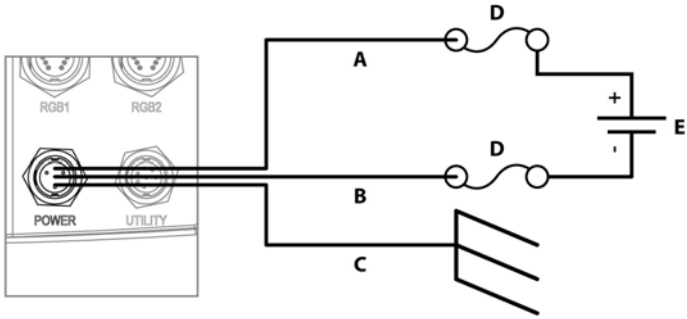


The unit and all connectors are waterproof. The unit screws to a vertical panel with the connectors facing down. Form the cables into loops below the unit so that any condensation will drip off.

Connect up to four (4) USB accessories. Each USB accessory can be powered from the USB hub by the USB port 5 V supply (500 mA maximum) or the accessory must have its own power supply.

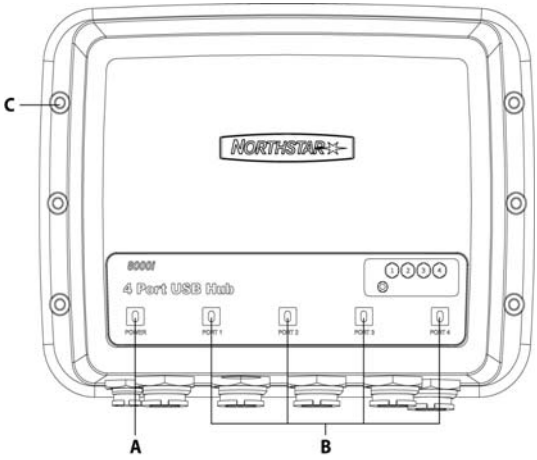
Connect the USB hub type B connector to a type A USB port in the Northstar 8000i System, either port on the processor can be used, or connect to a port on another USB hub.

Connect to supplied power cable making sure a 5 Amp fuse is used



A	Red	Battery Positive
B	Black	Battery Negative
C	Green / Yellow stripe or Brown	Ships Ground
D	Fuse	Use a 5 Amp fuse or breaker
E	Battery	12 V DC or 24 V DC Nominal

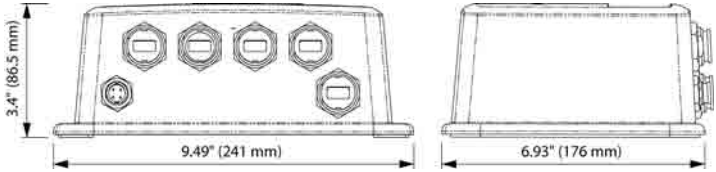
Turn the unit's power supply and the Northstar 8000i System on. Check that the unit's power supply LED is turns red. Check that the LEDs on the ports that have accessories connected are green. If an LED is yellow then disconnect that accessory because it is drawing too much power supply current.



A	Red	Unit is on **Note: The Northstar 8000i processor has to be connected and working in order for the USB Hub to function**.
B	Green	USB Accessory Connected and functioning
B	Yellow	USB accessory is connected but is requiring to much power. See user guide of peripheral and provide extra power

Set up and test the USB accessories as described in the Northstar 8000i Operation Manual.

7 Specification



Power supply:	10 V to 35 V DC, 18 W maximum.
Operating temperature:	5ºF to 131ºF (-15ºC to 55ºC).
USB port to Northstar 8000i System:	USB 2.0 and 1.0, 1.1 compliant.
USB accessory ports:	USB 2.0 and 1.0, 1.1 compliant. Four ports, type A. Each port can supply power to the accessory, 4.75 V DC to 5.25 V DC, up to 500 mA per port.
Environment:	Waterproof to IPX6.

8 Maintenance

⚠CAUTION

Follow the Maintenance Guidelines in the Northstar 8000i System Installation Manual.

9 Technical support, service and repairs

Northstar products are manufactured and serviced by BNT Marine Electronics.

The product is covered by a warranty which is supplied as a separate document.

If you need technical support, or answers to other questions after you've followed the instructions in this manual, you can:

- contact your Northstar distributor or
- see the inside back cover of the manual or
- visit www.northstarnav.com.

Before you make contact, be sure to have:

- the serial number of the hardware (usually shown on the faceplate of the unit).

When you describe the problem, be as complete and as accurate as possible.

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4 Port USB Hub
Installation Manual

Made in New Zealand
MN000488D-G